

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

This Amendment is being submitted pursuant to 37 C.F.R. § 1.114 in conjunction with a Request for Continued Examination, or RCE. Claims 1 and 3-10 are presently active in this case and stand rejected. The present Amendment amends Claims 1, 3, 4, and 6 and cancels Claims 2 and 11-23 without prejudice and disclaimer.

In the outstanding Office Action, Claims 1, 5, 8, 11, 12, 16, 19, 22, and 23 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hobson et al. (GB Patent No. 2185116, hereinafter “Hobson”); and Claims 2-4, 6, 7, 9, 10, 13-15, 17, 18, 20, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Hobson in view of Nekrasov et al. (Soviet Union Patent No. 858429, hereinafter “Nekrasov”).

Applicants thank Examiner J. C. Hong for the courtesy of an interview extended to Applicants’ representative on January 5, 2005. During the interview, amendments to the claims as herein presented were proposed, and arguments as hereinafter developed were presented. No agreement with respect to the claims was reached. Examiner Hong indicated on the interview summary (form PTOL-413) that “Mr. McQuay argued about interpretation of the references. If combining the Claims 1 and 2; and 11, 12 and 13. Examiner will consider and examine further search. No patternability was agreed upon.”

Applicants also thank Examiner Hong for the verbal acknowledgement during the personal interview that the Information Disclosure Statement filed July 7, 2003 has been safely received as of its filing date. Applicants respectfully request that the same be acknowledged as having been considered in the next Office Action.

Claim 1 has been amended with the subject matter of Claim 2 and Claims 2 and 11-23 have been cancelled without prejudice or disclaimer.

As explained during the personal interview, Applicants respectfully submit that presently amended Claim 1 cannot be anticipated by Hobson because each and every element as set forth in those claims is not found, either expressly or inherently described, in the cited reference. In an anticipation rejection, the identical invention must be shown in as complete detail as is contained in the claim.¹

Presently amended Claim 1 relates to a method of distributing blades on a turbomachine rotor, comprising measuring the radial and tangential static moments of the blades, *classifying the blades in pairs* based on the measured radial and tangential static moments, and *mounting the selected pair of blades one by one on the rotor in diametrically opposite positions*. The selection criterion in Claim 1 comprises determining for two given blades both a radial static moment difference and a tangential static moment difference, and verifying that the radial static moment difference is not greater than a first determined value and that the tangential static moment difference is not greater than a second determined value.

Hobson has been acknowledged as failing to disclose the features of Claims 2 and 13. As such, in view of the present amendment to Claim 1, Hobson cannot support a prima facie case of anticipation of that claim. Claims 5 and 8 depend directly or indirectly from Claim 1.

In Hobson, blades for use in a gas turbine engine are individually moment weighed in each of three attitudes (see, for example, the abstract of Hobson). Subsequently, “on completion of the moment weighing operation, the observed moment weight for each attitude

¹ See MPEP 2131: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

is marked in the respective blades, which are then stored. On withdrawal of a complete set of blades from stores for assembly on a pre balanced disc, the blades moment weights are first entered into a computer, which is programmed to sort the moment weights and issue an instruction regarding the best positions in which blades should be placed on a disc rim with respect to each other so as to provide a balanced assembly" (Hobson, page 2, lines 65-77).

Applicants further note that, contrary to the characterization of this reference in the outstanding Office Action, Hobson does not classify the blades in pairs and does not mount the selected pair of blades on the rotor in diametrically opposite positions as recited in Claim 1. As explained, Hobson relates to a method for assembling blades that comprises measuring the static moments of each blade, classifying the blades depending on the moment weights thereof, and mounting the blades on the rotor with respect to each other so as to provide a balanced assembly. As explained during the interview, and contrary to the position taken by the Office in the Advisory Action mailed on October 25, 2005, the expression "with respect to each other" in Hobson refer to the blades in the complete set of stored blades for assembly on a pre balanced disc and not to pair of blades as recited in Claim 1.

Turning to the obviousness rejections, Applicants respectfully submit that Hobson and Nekrasov, neither individually nor in any combination thereof, support a *prima facie* case of obviousness of the invention recited in the presently amended Claim 1. This is so because, even when combined, these references do not teach or suggest all the claimed features. Claims 3, 4, 6, 7, 9, and 10 depend directly or indirectly from Claim 1, thus incorporating by reference all of the features recited in that claim.

The deficiencies of Hobson have already been discussed above. As previously stated, the outstanding Office Action further acknowledges that Hobson does not teach or disclose a "selection criterion [that] comprises determining for two given blades both radial/axial static

moment difference and a tangential static moment difference, and in verifying that the radial/axial static moment differences is not greater than a first determined value.” Nekrasov was cited for assertedly remedying the acknowledged deficiencies of Hobson. However, even if assuming *in arguendo* that Nekrasov teaches the asserted features, it does not remedy the above-noted deficiency of Hobson.

Nekrasov relates to a method for balancing a turbine working wheel that involves the mounting of blade groups taking into account a disk imbalance. According to the abstract of Nekrasov, “wheel balancing is based on the selection of a set of blades whose static moment scatter does not exceed a predetermined value, measurement of the static moment of each set, division of blade sets into two groups and mounting of the individual blades in the disc slots taking into account their static moment. The first blade group is mounted through the slot and the second blade group is mounted through the slot beginning with the second slot of the disc.” Similarly to Hobson, as just summarized, Nekrasov does not classify blades in pairs, does not determine for two given blades both a radial static moment difference and a tangential static moment difference, does not verify that the radial static moment difference is not greater than a first determined value and that the tangential static moment difference is not greater than a second determined value, and does not mount blades of selected pairs on a rotor in diametrically opposite positions as recited in Claim 1.

Based at least on the foregoing, Applicants respectfully submit that Hobson and Nekrasov, neither individually nor in any combination, render obvious the invention recited in Claim 1. In addition, Claims 3, 4, 6, 7, 9, and 10 should be allowed, among other reasons, as depending either directly or indirectly from Claim 1, which should be allowed as just explained. As such, withdrawal of the obviousness rejection of Claims 3, 4, 6, 7, 9, and 10 is respectfully requested.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1 and 3-10 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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